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| 10/813,188 | 03/29/2004 | Deuk Il Park | CL-10271 | 5838 |
| 23123 | 7590 | 03/01/2006 | EXAMINER | |
| SCHMEISER OLSEN & WATTS 18 E UNIVERSITY DRIVE SUITE # 101 MESA, AZ 85201 | | | SANEI, HANA ASMAT | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2879 | |

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,188

Applicant(s)

PARK ET AL.

Examiner

Hana A. Sanei

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "diffusion member" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Applicant is reminded of the proper format for an abstract of the disclosure. The abstract should be generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winsor (US 5319282) in view of Vollkommer et al (US 6246171 B1).

Regarding Claims 1 & 6, Winsor teaches a diffusion member (74, see at least Figs. 5-6, the diffusion member adjacent to the face plate 68); a flat fluorescent lamp (planar fluorescent lamp, 10) which includes a front substrate (14); a back substrate (16) having a continuous serpentine type discharge channel (Col. 6, lines 46-52)

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defined by a plurality of partitions (48, Fig. 2); a pair of electrodes (planar electrodes 22, 24) provided on an outer surface of the front and back substrates; an inverter (55); and a frame (18, 20) having the diffusion member and the flat fluorescent lamp. It should be noted that since Winsor's pair of sidewalls (18, 20) act to bring together the formation of parts fitted together, the applicant's term "frame" may loosely be interpreted as such. Winsor lacks the electrodes including a discharge electrode and a plurality of subsidiary electrodes.

In the same field of endeavor, Vollkommer teaches a discharge electrode (213 and 214, see at least Fig. 7a) and a plurality of subsidiary electrodes (204/203 and 206/205 respectively), the discharge electrodes are mounted in strip shapes, and the plurality of subsidiary electrodes correspond to positions of the Winsor's partitions, and are disposed to be perpendicular to the discharge electrodes (as displayed in Fig. 4), the plurality of subsidiary electrodes being alternately connected to inner edges of both the discharge electrodes so that neighboring subsidiary electrodes have different polarities (Col. 11, lines 31-44 & Fig. 7a, such that 204/203 are cathodes and 206/205 are anodes, hence establishing different polarities in an alternating fashion). Vollkommer teaches that the alternating arrangement provides advantageous benefits of operating the device reduced power consumption (Col. 11, lines 51-54).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the electrodes, as disclosed by Vollkommer, in the device of Winsor for providing overall reduced power consumption.

2. Claims 2-3, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winsor (US 5319282) in view of Amatsuchi et al (US 2002/0063523 A1).

Regarding Claim 2, Winsor teaches a diffusion member (74, see at least Figs. 5-6, the diffusion member adjacent to the face plate 68); a flat fluorescent lamp (planar fluorescent lamp, 10) which includes a front substrate (14); a back substrate (16) having a continuous serpentine type discharge channel (Col. 6, lines 46-52) defined by a plurality of partitions (48, Fig. 2); a pair of electrodes (planar electrodes 22, 24) provided on an outer surface of the front and back substrates; an inverter (55); and a frame (18, 20) having the diffusion member and the flat fluorescent lamp. It should be noted that since Winsor's pair of sidewalls (18, 20) act to bring together the formation of parts fitted together, the applicant's term "frame" may loosely be interpreted as such. Winsor lacks the electrodes including a discharge electrode and a plurality of first and secondary subsidiary electrodes.

In the same field of endeavor, Amatsuchi teaches a discharge electrode (Y1b and X1b on the outer most peripheral region of the device, see at least Fig. 1) and a subsidiary electrode (Y1a, X1a), the discharge electrodes are mounted in strip shapes, and each of the subsidiary electrodes has a first subsidiary electrode (parallel portion of T-shaped conductive film of any one of Y1a, X1a) disposed to be adjacent to any one of the discharge electrodes while being in parallel therewith, and a plurality of second subsidiary electrodes (orthogonal portion of T-shaped conductive film of any one of Y1a, X1a) which are mounted to correspond to positions of the partitions, and are positioned to be perpendicular to the first subsidiary electrode, the second subsidiary electrodes of

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both the subsidiary electrodes being alternately connected to inner edges of both the first subsidiary electrodes so that neighboring electrodes have different polarities, and the discharge electrode and the first subsidiary electrode are separately connected to the Winsor's taught inverter. That Amatsuchi teaches the second subsidiary electrodes of both the subsidiary electrodes being arranged one above or alongside the other guarantees an interpretation of an *alternating* fashion. Furthermore, since the scan and sustaining electrodes possess different electrical polarities, the alternating subsidiary electrodes thereof consequently have different polarities. Amatsuchi teaches that the electrode arrangement provides a reduction of power ([0033]).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the electrodes, as disclosed by Amatsuchi, in the device of Winsor for added benefit of providing a reduction in power.

Regarding Claims 3 & 8, Winsor-Amatsuchi teaches that the discharge electrode (Y1b) and the first subsidiary electrode (Y1a) adjacent to the discharge electrodes have the same polarities.

3. Claims 4 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winsor (US 5319282) in view of Vollkommer et al (US 6246171 B1) in further view of Shimizu et al (US 20020030437 A1).

Regarding Claims 4 & 9, Winsor-Vollkommer teaches the invention set forth above (see rejection in Claim 1 above). Winsor-Vollkommer is silent regarding a hollow subsidiary electrode.

In the same field of endeavor, Shimizu teaches a hollow electrode. Shimizu teaches that a hollow electrode prevents cracking or damaging to the neighboring parts of the device in close proximity with the hollow electrode.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the electrode, as disclosed by Shimizu, in the device of Winsor-Vollkommer in order to prevent cracking or damaging to the device overall.

4. Claims 5 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winsor (US 5319282) in view of Amatsuchi et al (US 2002/0063523 A1) in further view of Shimizu et al (US 20020030437 A1).

Regarding Claims 5 & 10, Winsor-Amatsuchi teaches the invention set forth above (see rejection in Claim 2 above). Winsor-Amatsuchi is silent regarding a hollow subsidiary electrode.

In the same field of endeavor, Shimizu teaches a hollow electrode. Shimizu teaches that a hollow electrode prevents cracking or damaging to the neighboring parts of the device in close proximity with the hollow electrode.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the electrode, as disclosed by Shimizu, in the device of Winsor-Amatsuchi in order to prevent cracking or damaging to the device overall.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hana A. Sanei whose telephone number is (571) 272-8654. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner
Hana A. Sanei



S. Roy
2/17/06
Sikha Roy
Au 2879